

Application No. 10/049,246
Reply to Office Action of June 14, 2006

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REMARKS

Presently, claims 1-50 are pending in the application. Claims 4, 9, 14, 29, 30, 33, 39, 43, and 44 are withdrawn from consideration without prejudice or disclaimer to the subject matter contained therein. Claims 16-24, 26-28, 38, 40, and 42 have been canceled. Independent claims 1, 10, 25, 31, and 41 have been amended. Support for the amendments to independent claim 1, 10, 31, and 41 may be found, for example, on page 10-11 of the specification. Support for the amendments to claim 25, may be found, for example, in original claim 28. Claim 45-50 have been added. Support for new claims 45-50 may be found, for example, in FIGs. 1, 2A, and on page 16, lines 17-31. Accordingly, no new matter has been added by the foregoing amendments.

Prior Art Rejection – 35 U.S.C 102(e)

The Examiner has rejected claims 1-3, 5, 17, 19, 21, 32 and 34 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,529,555 to Tahara *et al.* ("Tahara"). The Examiner contends that Tahara teaches all elements of these claims. For the reasons stated below, Applicant respectfully traverses this rejection.

Tahara discloses a system for seamlessly splicing two encoded video streams. Tahara addresses how to match field and frame patterns of a replacement video stream with those of another live video stream so the original stream can be replaced without discontinuity (column 7, lines 25-28). In the embodiment cited by the Examiner, a target bit rate is calculated for a stream that is to be inserted. The target bit rate is a function of the difficulty data supplied by video encoders for all of the video streams in a transmission (column 12, lines 35-60). This is done "dynamically" (column 12, line 59). Thus, a profile of a target bit rate is not pre-designated. Rather, a dynamic target is created picture by picture for compression on the fly. Therefore, Tahara does not disclose an analysis of a video stream and the pre-designation of a bit rate profile from that stream for use in compressing a stream to be inserted.

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Applicant's claims are directed to a system and method for inserting video streams into statistically-multiplexed video streams containing multiple video programs, by pre-designating a rate profile for compression of the inserted video stream.

For a rejection under § 102(e) to be proper, a reference must disclose, either explicitly or inherently, each and every element of the claimed invention. Applicant respectfully submits that Tahara does not teach each and every element recited in independent claim 1.

Independent claim 1 recites (with emphasis added):

A method for inserting a digital media advertisement in a digital multiplexed stream, the method comprising:

pre-designating a rate profile associated with a program stream;

compressing the digital media advertisement according to the pre-designated rate profile; and

inserting the compressed digital media advertisement in the digital multiplexed stream at an advertising opportunity in the program stream.

Tahara does not disclose "pre-designating a rate profile associated with a program stream" or "compressing the digital media advertisement according to the pre-designated rate profile," since Tahara teaches only "dynamically" calculating a "target bit rate" based on "difficulty data ... indicating the quantity of bits required for coding a target picture." In other words, Tahara "dynamically" changes the bandwidth usage of an already multiplexed program stream to determine how to compress an advertisement in accordance with that profile based on the difficulty data. Therefore, in Tahara, the rate profile for an advertisement is not pre-designated, and only is based on the difficulty data of the other program streams as "dynamically" calculated at the time of encoding.

Further, even if as the Examiner argues, the collective target bit rates for a number of channels could be considered a rate profile, this rate profile is not used to compress a digital media advertisement as recited in claim 1. Instead, the target bit rates that the

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Examiner argues are a rate profile, at best, are the target bit rates at an instant of all channels calculated. Therefore, the target bit rates are not a profile for compressing an advertisement, but instead are the target bit rate for all channels at an instant.

The Examiner cites Tahara (column 12, lines 35-40) for the proposition that Tahara "computes a rate profile associated with a stream." However, "target bit rates" based on "difficulty data output from the video encoders" are dynamically calculated (column 12, lines 35-44). Thus, there is no suggestion of pre-designating a rate profile, since Tahara's system is limited to an analysis of one frame at a time. Further, Tahara does not disclose "compressing the digital media advertisement according to the pre-designated rate profile." As explained above, Tahara discloses an on-the-fly encoding based on a picture-by-picture coding difficulty signal (column 23, lines 63-65). Thus, there is no disclosure or suggestion in Tahara that a predetermined bit rate profile is computed from a program stream, and then used to compress digital media advertisement for insertion into that program stream. Accordingly, Tahara does not disclose all of the features of independent claim 1.

Independent claim 31, as amended, recites "pre-defining an advertising bit rate profile for an advertising opportunity." For the same reasons discussed above with respect to independent claim 1, Tahara does not disclose pre-defining an advertising bit rate profile. Further, the target bit rates are not specifically a profile for an advertisement or single channel and are instead target bit rates for all channels. As such, Tahara does not disclose all of the features recited in independent claim 31. The Examiner has not issued an anticipation rejection for claim 31, however Applicant believes it to be patentable over Tahara. The Examiner issued an anticipation rejection for claim 32 which is dependent on claim 31, without issuing an anticipation rejection for claim 31 seemingly in error.

Claims 2-3, 5, 32, and 34 are allowable at least by their dependency on independent claims 1 and 31, respectively. Claims 17, 19, and 21 have been canceled. Reconsideration and withdrawal of the Examiner's rejection of claims 1-3, 5, 17, 19, 21, 32 and 34 are respectfully requested.

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Prior Art Rejections – 35 U.S.C. 103(a)

The Examiner has rejected Claims 7, 22 and 35 under 35 U.S.C. 103(a) as being unpatentable over Tahara. Applicant respectfully traverses this rejection.

For the same reasons discussed above with respect to the Examiner's anticipation rejection of claims 1-3, 5, 17, 19, 21, 32 and 34, Tahara does not teach or suggest all of the elements of independent claims 1 and 31. Accordingly, claims 1 and 31 are believed to be allowable over Tahara. Dependent claims 7 and 35 depend on independent claims 1 and 31 respectively. Therefore claims 7 and 35 are believed to be patentable over Tahara. Claim 22 has been canceled. Reconsideration and withdrawal of the Examiner's rejection of claims 7, 22 and 35 are respectfully requested.

The Examiner has rejected claims 8, 23 and 36 as being unpatentable over Tahara in view of U.S. Patent No. 6,208,688 to Seo *et al.* ("Seo"). Applicant believes that the Examiner intended to include claim 15 in this group, however instead indicated the rejection of claim 15 in a later section (see page 6 of the Office Action). Applicant respectfully traverses this rejection. For the same reasons discussed above with respect to the Examiner's anticipation rejection of claims 1-3, 5, 17, 19, 21, 32 and 34, Tahara does not teach or suggest all of the elements of independent claims 1 and 31. Applicant respectfully submits that Seo does not teach or suggest the elements missing from Tahara. Accordingly, independent claims 1 and 31 are believed to be allowable over the combination of Tahara and Seo. Independent claim 10 is believed to be patentable over Tahara and Seo does not teach any additional aspects of claim 10. Dependent claims 8, 15, and 36 are allowable at least by their dependency on independent claims 1, 10, 31, respectively. Claim 23 has been canceled. Reconsideration and withdrawal of the Examiner's rejection of claims 8, 15, 23 and 36 are respectfully requested.

The Examiner has rejected claims 6, 9-13, 15-16, 18, 20, 24-28, 31, 37-38 and 40-42 under 35 U.S.C. 103(a) as being unpatentable over Tahara in view of U.S. Patent No.

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6,611,624 to Zhang *et al.* ("Zhang"). It appears, however, that the Examiner has relied on Zhang only for the rejection of claims 6, 9, 24 and 37.

Regarding independent claim 10, the Examiner has referred only to the rejection of claim 1 and asserts that "Tahara discloses determining a second bit rate profile for a second advertising opportunity." Claim 10 recites, "predetermining a first bit rate profile," "predetermining a second bit rate profile," and "specifying a predetermined bit rate profile for compression of a first advertisement and a second advertisement, wherein the predetermined bit rate profile provides a limit to the sum of the first bit rate profile and the second bit rate profile." The cited passage of Tahara only refers to typical statistical multiplexing of more than one video signal. Tahara does not predetermine the bit rate profile for advertisements. Thus, Tahara does not disclose using a single bit rate profile to limit the sum of a first bit rate profile and a second bit rate profile. Moreover, as discussed above with respect to independent claim 1, Tahara does not disclose the use of any bit rate profile or the computation thereof specifically for compressing an entire advertisement, only using a target bit rate for compressing a single frame. Accordingly, Tahara does not teach or suggest all of the features of independent claim 10. Zhang does not teach or suggest these missing elements. Therefore, independent claim 10 is believed to be allowable over the combination of Tahara and Zhang.

Independent claim 25 recites that "the ad encoder/compressor encodes and compresses the first advertisement and the second advertisement at a predetermined aggregate bit rate profile which is based on the total bits from the start point to the end point of both the first bit rate profile and the second bit rate profile." The Examiner has placed this rejection in the area indicated for the combination of Tahara and Zhang, however has only made reference to the teachings of Tahara in his rejection. Regardless, the combination of Tahara and Zhang fails to teach or suggest all features of independent claim 25 for the reasons discussed above. Therefore, claim 25 is believed to be allowable over the combination of Tahara and Zhang.

Claim 31 does not refer to use of a single rate profile to limit the sum of a first bit rate profile and a second bit rate profile. Accordingly, the Examiner's remarks regarding

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claim 31 are irrelevant. As discussed above with respect to the Examiner's anticipation rejection, independent claim 31, as amended, recites "pre-defining an advertising bit rate profile for an advertising opportunity." For the same reasons discussed above with respect to independent claim 1, Tahara does not disclose pre-defining an advertising bit rate profile. As such, Tahara does not disclose all of the features recited in independent claim 31. Applicant respectfully submits that Zhang does not teach or suggest the elements missing from Tahara. Accordingly, independent claim 31 is believed to be allowable over the combination of Tahara and Zhang.

Claim 41 recites "determining an available bandwidth of an advertising opportunity in a digital video program stream based on a pre-identified bandwidth profile." For the same reasons discussed above with respect to independent claim 1, Tahara does not disclose a pre-identified bandwidth profile. Applicant respectfully submits that Zhang does not teach or suggest the elements missing from Tahara. Accordingly, independent claim 41 is believed to be allowable over the combination of Tahara and Zhang.

Although the Examiner has rejected claims 12, 20, and 27 over Tahara in view of Zhang, the Examiner also indicates the taking of Official Notice with respect to these claims (see pages 6 and 7 of the Office Action). More specifically, the Examiner contends that "it would have been obvious for the profile to supply the instantaneous sum of the first and second bit profile...in order to make the apparatus operate more efficiently by already knowing the sum of the bit rates instead of calculating them" and that "it would have been obvious to compress the advertisement at a minimum bite rate," respectively. To the extent the Examiner has taken Official Notice, Applicant disagrees that these statements are "facts outside of the record which are capable of instant and unquestionable demonstration as being 'well-known' in the art," as required by M.P.E.P. §2144.03, which would support an Examiner's finding of Official Notice.

It is unclear from the Examiner's arguments to what extent the Examiner is taking Official Notice with respect to claims 12, 20 and 27. Furthermore, although Applicant has previously traversed the Examiner's Official notice with respect to claims 12 and 27,

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it is unclear whether the Examiner is still taking Official Notice with respect to claims 12 and 27. Thus, to the extent that Official Notice is being applied against any of claims 12, 20 or 27, Applicant respectfully traverses the Examiner's taking of Official Notice, and respectfully requests that the Examiner support the taking of Official Notice by producing a relevant reference that shows/teaches a rate profile that includes insertion instructions, and that the Examiner identify a specific teaching in the reference to support such a combination with Tahara and/or Zhang.

Dependent claims 11-13 and 37 are allowable at least by their dependency on independent claims 10 and 31, respectively. Claim 9 has been previously withdrawn. Claims 16, 18, 20, 24-28, 38, 40, and 42 have been canceled. Reconsideration and withdrawal of the Examiner's rejection of claims 9-13, 15-16, 18, 20, 24-28, 31, 37-38 and 40-42 are respectfully requested.

Conclusion

In view of the foregoing remarks, Applicant respectfully submits that the Examiner's objection and rejections have been overcome, and that the application, including claims 1-3, 5-8, 10-13, 15, 25, 31-32, 34-36, 41, and 45-50 is in condition for allowance. Reconsideration and withdrawal of the Examiner's objection and rejections and an early Notice of Allowance are respectfully requested.

Respectfully submitted,

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